The egg.—The act of egg-laying has not been observed, but probably takes place in the evening or at night as the moths are rarely seen on the leaves during the day. The eggs are attached to the under surface of the leaf, usually at the forks of the more prominent veins. The egg is about .3 mm. long by .2 mm. wide, oval in outline, flattened where attached to the leaf and dome-shaped in profile. The green of the leaf shows through the transparent egg-shell, making it a difficult object to find. They are most easily located by holding a leaf at an angle in the sun so the light will strike it obliquely when the eggs will be seen as minute glistening dots. The exact time required for the hatching of the egg has not been determined, but it cannot be far from two weeks. On June 2, 1908, an examination of the orchard showed that a great number of eggs had been laid; on June 9 no eggs had hatched, and on June 18 hatching had just nicely begun.

The larva —In hatching the larva eats its way out of the egg-shell on the under side next to the leaf and enters the leaf directly without coming out on the surface. When full grown the larva is about 1/6 inch in length, greenish white in colour, with the head light brown; the contents of the alimentary canal show through the semitransparent body wall as a greenish or brownish stripe. The larva is legless and only slightly flattened; the constrictions between the segments are rather deep but obtuse; the surface of the body is smooth and clothed with dense, very short, microscopic hairs interspersed with a few larger ones.

The mine.—After entering the leaf directly from the under side of the egg the young larva eats out a narrow linear burrow or mine an inch or less in length, leaving the outer layers of the leaf intact. This portion of the mine usually follows a tortuous course but may be nearly straight. The larva next enlarges its mine into an irregular ovate blotch about one-half inch in length. In the linear portion of the mine the excrement is left as a blackish streak extending along the centre of the burrow; in the blotch mine it forms a broad irregular band along the centre, but does not extend to the tip. The outer leaf layers overlying the mines turn brownish or yellowish; the upper layer seems to be thinner than the lower and the mines are more conspicuous when viewed from above. There are ten or a dozen mines in a single leaf.

The cocoon.—When full grown the larva leaves the mine through a cut in the upper surface of the leaf, falls to the ground and there constructs a small flattened brownish cocoon in cracks in the soil, under